

CLAIMS

What is claimed is:

1. A rack mounting system for retractably supporting a computer system
5 component in a component rack, the system comprising:

identical left and right support rails, each support rail being securable in the rack
in mutually facing parallel relation, each support rail including a first securement region
adjacent to a first longitudinal edge and a second securement region adjacent to a second
longitudinal edge, the first and second securement regions being symmetrical about a
10 longitudinal axis of the respective support rail; and

identical left and right slide assemblies, the left slide assembly being secured to
the first securement region of the left support rail and the right slide assembly being
secured to the second securement region of the right support rail.

15 2. The system of claim 1, wherein each of the first and second securement
regions include a plurality of apertures for receiving fasteners for securing the slide
assemblies to the respective support rails.

20 3. The system of claim 1, wherein the left and right support rails each
include a central web and first and second flanges bordering the central web along the
first and second securement regions.

4. The system of claim 3, wherein the left and right slide assemblies each have an installed height of less than half of a distance between the first and second flanges of the support rails.

5. The system of claim 1, wherein each slide assembly is a compound slide assembly including a plurality of mating rail sets stacked in a direction transverse to a sliding direction, each mating rail set being telescopically extensible over a portion of a retraction length of the component.

6. The system of claim 1, wherein the first securement region of the left support rail is disposed adjacent to a lower edge thereof and the second securement region of the right support rail is disposed adjacent to a lower edge thereof, whereby the slide assemblies are secured to the respective support rails in mutually facing lower positions.

7. A rail assembly for retractably supporting a computer component in a component rack, the rail assembly comprising:

a support rail securable in the component rack, the support rail including an elongated web portion and first and second flanges bordering the web portion and spaced from one another by a distance, the web portion having first and second mounting regions adjacent to the first and second flanges, the mounting regions being symmetrical about a longitudinal axis of the support rail; and

a slide assembly configured to be slidably support the component on the support rail, the slide assembly including mutually mating rails telescopically secured to

one another, the slide assembly being mountable to the support rail in either the first or the second mounting region.

8. The assembly of claim 7, wherein the slide assembly has an installed height of approximately one half the distance between the first and second flanges of the support rail.

9. The assembly of claim 7, wherein the slide assembly is a compound slide assembly including a plurality of mating rail sets stacked in a direction transverse to a sliding direction, each mating rail set being telescopically extensible over a portion of a retraction length of the component.

10. The assembly of claim 7, wherein when installed in the support rail, the slide assembly extends from the support rail web by more than twice a width of the first or second flange.

11. The system of claim 7, wherein each of the first and second mounting regions include a plurality of apertures for receiving fasteners for securing the slide assembly to thereto.

12. A rack mounted computer system comprising:
a rack having front and rear access sides, and left and right side panels extending between the front and rear access sides;

a computer component having an enclosure for supporting internal hardware, the enclosure defining left and right peripheral sides, each peripheral side having a lower recess extending toward a center of the enclosure; and

left and right sliding support assemblies mounted in mutually facing relation within the rack generally parallel to the left and right side panels respectively, each support assembly including an identical support rail secured to the rack and a slide assembly mounted on the support rail, each support rail having first and second support regions symmetrically disposed about a longitudinal axis thereof, each slide assembly being mounted to a support regions of the respective support rail, the slide assembly of the left support rail being mounted to the first support region thereof and secured to the left peripheral side of the computer component enclosure in the left lower recess, and the slide assembly of the right support rail being mounted to the second support region thereof and secured to the right peripheral side of the computer component enclosure in the right lower recess.

13. The system of claim 12 wherein each slide assembly is mounted in a lower support region of the respective support rail.

14. The system of claim 12, wherein the first and second support regions of each support rail includes a plurality of apertures disposed symmetrically about the longitudinal axis thereof for securing the slide assemblies in either a lower or upper position with respect to the longitudinal axis.

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15. The system of claim 12, wherein each slide assembly is a compound slide assembly including a plurality of mating rail sets stacked in a direction transverse to a sliding direction, each mating rail set being telescopically extensible over a portion of a retraction length of the component through the front access side of the rack.

16. The system of claim 12, wherein each slide assembly extends from a web portion of the respective support rail web by more than twice a depth of the support rail.

17. The system of claim 12, wherein each slide assembly has an installed height of approximately one half a height of the respective support rail.

18. The system of claim 12, further comprising a pliable cable support arm secured to the rear access side of the rack for carrying electrical conductors coupled to the computer component.

19. The system of claim 18, wherein the cable support arm is disposed in and is extensible within a height envelop dimension of the component.

20. The system of claim 12, wherein each support rail is secured to the rack via separable mounting brackets fixed to front and rear mounting flanges of the rack.

21. The system of claim 20, wherein the mounting brackets recess each support rail within the rack toward a respective side panel thereof.

06/01/2016

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